

POST ETCH CLEANING COMPOSITION AND PROCESS FOR DUAL DAMASCENE SYSTEM

ABSTRACT OF THE DISCLOSURE

5

A new cleaning chemistry based on a choline compound, such as choline hydroxide, is provided in order to address the problem of dual damascene fabrication. An etch stop inorganic layer at the bottom of a dual damascene structure protects the underlying interconnect of copper and allows a better cleaning. A two step etch process utilizing the etch stop layer is used to achieve the requirements of ULSI manufacturing in a dual damascene structure.

15

20

25

30

35